ATTACHMENT 5

September 2009 - Groundwater Sample Information Sheets

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 132R	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	18.82	ft
Depth to product		ft
Depth to water (DTW)	12.03	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	15.0 ft
Bubbles purged from flow cell?	(Y) / N
Is drawdown >0.3 feet	(Y) / N
Was passive sampling used?	Y / (N)
Flowrate =	502 mL/min
ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	18.38	18.44	18.48				
Spec. Cond (µmhos) mS/cm	+/- 3%	2.78	2.76	2.75				
D.O. (mg/L)	+/- 10%**	0.65	0.49	0.47				
pH	+/- 0.1	6.89	6.88	6.88				
ORP (mV)	+/- 10 mV**	393	392	390				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9/15/09 Sample Time: 8:55 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 147AR	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	28.47	ft
Depth to product		ft
Depth to water (DTW)	11.95	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	23.0	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) N	
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)	
Purge method (B = bailer, P = pump)	B / P			Flowrate =	500	mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	15.49	15.52	15.46				
Spec. Cond (µmhos)	+/- 3%	2.93	2.94	2.97				
D.O. (mg/L)	+/- 10%**	2.09	1.51	1.10				
pH	+/- 0.1	6.93	6.91	6.89				
ORP (mV)	+/- 10 mV**	122	122	121				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.25 gallons
Sample Date: 9/15/09 Sample Time: 9:15 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- IW-1	Well Location:

Monitoring Well Data	
Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(1 2 4 6)
Stick up or stick down height	ft
Total depth of well (TD)	19.71 ft
Depth to product	ft
Depth to water (DTW)	12.17 ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)	ft		Depth of pump placement (place mid-screen)	13.5 ft
Conversion value (CV)*	x		Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	= gal		Is drawdown >0.3 feet	(Y) / N
3 Well volumes =	= gal		Was passive sampling used?	Y / (N)
Purge method (B = bailer, P = pump)	B / P		Flowrate =	500 mL/min
			ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	18.43	18.03	17.94				
Spec. Cond (µmhos)	+/- 3%	0.800	0.790	0.782				
D.O. (mg/L)	+/- 10%**	2.35	1.42	1.01				
pH	+/- 0.1	6.85	6.84	6.82				
ORP (mV)	+/- 10 mV**	107	105	104				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9/15/09 Sample Time: 9:55 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 163	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	19.25	ft
Depth to product		ft
Depth to water (DTW)	12.01	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	15.0	ft
Bubbles purged from flow cell?	(Y)/ N	
Is drawdown >0.3 feet	(Y)/ N	
Was passive sampling used?	Y / (N)	
Flowrate =	500	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	17.69	17.80	17.69	17.59			
Spec. Cond (µmhos)	+/- 3%	0.785	0.790	0.787	0.785			
D.O. (mg/L)	+/- 10%**	2.17	1.49	1.10	0.94			
pH	+/- 0.1	6.82	6.85	6.85	6.85			
ORP (mV)	+/- 10 mV**	173	152	147	147			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9/15/09 Sample Time: 10 : 10 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: Good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- ~~13~~ Kel IW-2	Well Location:

Monitoring Well Data

Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(1 2 4 6)
Stick up or stick down height	ft
Total depth of well (TD)	16.71 ft
Depth to product	ft
Depth to water (DTW)	13.12 ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		⇐OR⇒	**Micropurge sampling**	
Height of water column (H = TD – DTW)	ft		Depth of pump placement (place mid-screen)	14.5 ft
Conversion value (CV)*	x		Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	= gal		Is drawdown >0.3 feet	(Y) / N
3 Well volumes =	= gal		Was passive sampling used?	Y / (N)
Purge method (B = bailer, P = pump)	B / P		Flowrate =	500 mL/min
			ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	18.64	17.75	17.59				
Spec. Cond (µmhos)	+/- 3%	0.665	0.673	0.675				
D.O. (mg/L)	+/- 10%**	4.76	4.40	4.15				
pH	+/- 0.1	7.29	7.25	7.23				
ORP (mV)	+/- 10 mV**	262	266	269				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9/15/09 Sample Time: 10 :25 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 173	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	17.45	ft
Depth to product		ft
Depth to water (DTW)	13.57	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	15.5	ft
Bubbles purged from flow cell?	(Y) N	
Is drawdown >0.3 feet	(Y) N	
Was passive sampling used?	Y (N)	
Flowrate =	500	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	17.83	17.78	17.73				
Spec. Cond (µmhos)	+/- 3%	0.620	0.628	0.633				
D.O. (mg/L)	+/- 10%**	3.04	2.89	2.84				
pH	+/- 0.1	7.23	7.21	7.21				
ORP (mV)	+/- 10 mV**	298	299	299				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9/15/09 Sample Time: 11 00 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES NO explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 133 R	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	15.94	ft
Depth to product		ft
Depth to water (DTW)	10.22	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	13.0	ft
Bubbles purged from flow cell?	Y / N	
Is drawdown >0.3 feet	Y / N	
Was passive sampling used?	Y / N	
Flowrate =	500	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	21.57	21.43	21.46				
Spec. Cond (µmhos)	+/- 3%	1.275	1.262	1.254				
D.O. (mg/L)	+/- 10%**	2.34	1.94	1.60				
pH	+/- 0.1	6.96	6.94	6.94				
ORP (mV)	+/- 10 mV**	305	304	303				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9/15/09 Sample Time: 11 : 20 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: Good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 152	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	18.50	ft
Depth to product		ft
Depth to water (DTW)	14.22	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	16.25	ft
Bubbles purged from flow cell?	(Y) N	
Is drawdown >0.3 feet	(Y) N	
Was passive sampling used?	Y (N)	
Flowrate =	500	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	20.11	19.40	19.27				
Spec. Cond (µmhos)	+/- 3%	0.791	0.797	0.795				
D.O. (mg/L)	+/- 10%**	5.79	5.84	5.83				
pH	+/- 0.1	7.19	7.16	7.14				
ORP (mV)	+/- 10 mV**	309	311	313				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9/15/09 Sample Time: 11 : 40 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: Good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 148 R	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	24.39	ft
Depth to product		ft
Depth to water (DTW)	11.95	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	18.0	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) N	
Was passive sampling used?	Y / (N)	
Flowrate =	500	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	16.72	16.77	16.74				
Spec. Cond (µmhos)	+/- 3%	1.387	1.382	1.362				
D.O. (mg/L)	+/- 10%**	1.73	1.25	0.93				
pH	+/- 0.1	6.94	6.91	6.91				
ORP (mV)	+/- 10 mV**	254	253	252				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9 / 15 / 09 Sample Time: 11 : 55 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 165	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	18.98	ft
Depth to product		ft
Depth to water (DTW)	15.40	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	17.0	ft
Bubbles purged from flow cell?	(Y)/ N	
Is drawdown >0.3 feet	(Y)/ N	
Was passive sampling used?	Y (N)	
Flowrate =	500	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	20.75	19.73	19.69				
Spec. Cond (µmhos)	+/- 3%	1.007	1.005	1013				
D.O. (mg/L)	+/- 10%**	0.87	0.58	0.44				
pH	+/- 0.1	7.00	6.95	6.93				
ORP (mV)	+/- 10 mV**	199	195	194				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9/15/09 Sample Time: 13 : 10 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of ~~preservatives~~? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 166D	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	49.44	ft
Depth to product		ft
Depth to water (DTW)	15.18	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	44.0 ft
Bubbles purged from flow cell?	(Y) / N
Is drawdown >0.3 feet	(Y) N
Was passive sampling used?	Y / (N)
Flowrate =	502 mL/min
ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	16.81	16.59	16.39	16.42	16.39	16.41	
Spec. Cond (µmhos)	+/- 3%	0.702	0.705	0.749	0.766	0.782	0.789	
D.O. (mg/L)	+/- 10%**	8.29	8.48	8.16	6.79	5.38	4.00	
pH	+/- 0.1	7.71	7.69	7.50	7.41	7.36	7.33	
ORP (mV)	+/- 10 mV**	288	290	244	148	127	118	
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.5 gallons
Sample Date: 9/15/09 Sample Time: 13:20 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 165 D	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	46.33	ft
Depth to product		ft
Depth to water (DTW)	14.40	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	41.0	ft
Bubbles purged from flow cell?	(Y)/ N	
Is drawdown >0.3 feet	(Y)/ N	
Was passive sampling used?	Y /(N)	
Flowrate =	500	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	14.98	13.81	13.37	13.21			
Spec. Cond (µmhos)	+/- 3%	0.969	0.957	0.947	0.945			
D.O. (mg/L)	+/- 10%**	1.44	1.03	0.81	0.73			
pH	+/- 0.1	7.32	7.31	7.30	7.29			
ORP (mV)	+/- 10 mV**	90	90	90	90			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.5 gallons
Sample Date: 9 / 15 / 09 Sample Time: 13 : 45 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: Good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 165 S	Well Location:

Monitoring Well Data	
Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(1 2 4 6)
Stick up or stick down height	ft
Total depth of well (TD)	19.47 ft
Depth to product	ft
Depth to water (DTW)	14.59 ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	17.0 ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) / N
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)
Purge method (B = bailer, P = pump)	B / P			Flowrate =	500 mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	20.61	20.50	20.47	20.51			
Spec. Cond (µmhos)	+/- 3%	0.726	0.728	0.732	0.734			
D.O. (mg/L)	+/- 10%**	1.20	0.87	0.66	0.56			
pH	+/- 0.1	7.28	7.26	7.25	7.24			
ORP (mV)	+/- 10 mV**	117	115	113	112			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.5 gallons
Sample Date: 9 / 15 / 09 Sample Time: 14 : 00 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 146	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	23.13	ft
Depth to product		ft
Depth to water (DTW)	10.27	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	18.0	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y (N)	
Flowrate =	500	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	15.48	15.49	15.48				
Spec. Cond (µmhos)	+/- 3%	1.118	1.117	1.117				
D.O. (mg/L)	+/- 10%**	1.59	1.21	0.99				
pH	+/- 0.1	6.89	6.88	6.87				
ORP (mV)	+/- 10 mV**	332	330	329				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9/15/09 Sample Time: 14 : 50 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison 10	KEI Project #: 2829E
Sample I.D.: MW- -10-1R	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	18.59	ft
Depth to product		ft
Depth to water (DTW)	15.01	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
~~Split Sample~~
Duplicate / Duplicate ID: Dup-01
~~MS/MSD~~
~~Other~~ _____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	16.75 ft
Bubbles purged from flow cell?	Y / N
Is drawdown >0.3 feet	Y / N
Was passive sampling used?	Y / N
Flowrate =	500 mL/min
ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	16.76	16.63	16.60	16.56			
Spec. Cond (µmhos)	+/- 3%	0.785	0.792	0.795	0.795			
D.O. (mg/L)	+/- 10%**	1.74	1.28	1.00	0.83			
pH	+/- 0.1	7.06	7.04	7.03	7.02			
ORP (mV)	+/- 10 mV**	286	278	272	265			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.5 gallons
Sample Date: 9/15/09 Sample Time: 14 : 25 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES NO explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 153	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	19.73	ft
Depth to product		ft
Depth to water (DTW)	13.83	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
(Duplicate) Duplicate ID: Dup-02
(MS/MSD)
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	16.5	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) / N	
3 Well volumes =	=	gal		Was passive sampling used?	Y (N)	
Purge method (B = bailer, P = pump)	B / P			Flowrate =	500	mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	17.64	18.07	17.91				
Spec. Cond (µmhos)	+/- 3%	1.81	1.81	1.82				
D.O. (mg/L)	+/- 10%**	6.27	6.40	6.15				
pH	+/- 0.1	7.31	7.25	7.23				
ORP (mV)	+/- 10 mV**	314	314	312				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 10 gallons
Sample Date: 9/15/09 Sample Time: 15:25 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 302	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	37.59	ft
Depth to product		ft
Depth to water (DTW)	13.17	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	32.0	ft
Bubbles purged from flow cell?	(Y)/ N	
Is drawdown >0.3 feet	(Y)/ N	
Was passive sampling used?	Y (N)	
Flowrate =	500	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	15.87	16.01	16.39	16.74			
Spec. Cond (µmhos)	+/- 3%	0.669	0.668	0.668	0.669			
D.O. (mg/L)	+/- 10%**	1.27	1.40	1.90	2.03			
pH	+/- 0.1	7.40	7.39	7.40	7.40			
ORP (mV)	+/- 10 mV**	293	289	285	283			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9 15 / 09 Sample Time: 15 : 55 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-15-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 164	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	24.77	ft
Depth to product		ft
Depth to water (DTW)	19.16	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	22.0	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y / (N)	
Flowrate =	500	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	16.32	16.23	16.20				
Spec. Cond (µmhos)	+/- 3%	0.891	0.892	0.891				
D.O. (mg/L)	+/- 10%**	0.51	0.42	0.39				
pH	+/- 0.1	7.05	7.04	7.04				
ORP (mV)	+/- 10 mV**	418	417	416				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9/16/09 Sample Time: 9 : 05 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: Good

Signature: Kathy Eck Date: 9-16-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 157	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	17.06	ft
Depth to product		ft
Depth to water (DTW)	12.31	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling	
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	14.5 ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y)/ N
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y)/ N
3 Well volumes =	=	gal		Was passive sampling used?	Y /(N)
Purge method (B = bailer, P = pump)	B / P			Flowrate =	500 mL/min
				ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	14.89	14.87	14.83				
Spec. Cond (µmhos)	+/- 3%	0.670	0.667	0.667				
D.O. (mg/L)	+/- 10%**	1.55	1.22	1.00				
pH	+/- 0.1	7.11	7.10	7.10				
ORP (mV)	+/- 10 mV**	409	408	407				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9/16/09 Sample Time: 9:20 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-16-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 169 D	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	34.67	ft
Depth to product		ft
Depth to water (DTW)	20.41	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling		
Depth of pump placement (place mid-screen)	29.0	ft
Bubbles purged from flow cell?	(Y) / N	
Is drawdown >0.3 feet	(Y) / N	
Was passive sampling used?	Y / (N)	
Flowrate =	500	mL/min
ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	15.38	15.17	15.10	15.10			
Spec. Cond (µmhos)	+/- 3%	0.152	0.494	0.959	1.112			
D.O. (mg/L)	+/- 10%**	1.09	0.85	0.66	0.54			
pH	+/- 0.1	7.15	6.93	6.93	6.95			
ORP (mV)	+/- 10 mV**	94	91	83	78			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.25 gallons
Sample Date: 9 / 16 / 09 Sample Time: 10 :05 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: no well cover

Signature: Kathy Eck Date: 9-16-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-16 95	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	23.21	ft
Depth to product		ft
Depth to water (DTW)	20.37	ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	22.0	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y)/ N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y)/ N	
3 Well volumes =	=	gal		Was passive sampling used?	Y /(N)	
Purge method (B = bailer, P = pump)	B / P			Flowrate =	500	mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	17.41	16.83	16.72				
Spec. Cond (µmhos)	+/- 3%	1.101	1.100	1.100				
D.O. (mg/L)	+/- 10%**	2.78	1.93	1.73				
pH	+/- 0.1	6.97	6.92	6.90				
ORP (mV)	+/- 10 mV**	264	250	242				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9/16/09 Sample Time: 9 : 45 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES NO explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-16-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 166 S 167	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	21.73	ft
Depth to product		ft
Depth to water (DTW)	18.87	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	20.5	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) / N	
3 Well volumes =	=	gal		Was passive sampling used?	Y / (N)	
Purge method (B = bailer, P = pump)	B / P			Flowrate =		mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	18.27	17.79	17.56				
Spec. Cond (µmhos)	+/- 3%	2.24	2.23	2.22				
D.O. (mg/L)	+/- 10%**	1.13	0.81	0.70				
pH	+/- 0.1	6.84	6.82	6.81				
ORP (mV)	+/- 10 mV**	300	300	300				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9/16/09 Sample Time: 10 : 50 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Cook Date: 9-16-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 151	Well Location:

Monitoring Well Data	
Well Material	(PVC/SS/Teflon)
Inside Diameter, in.	(1 2 4 6)
Stick up or stick down height	ft
Total depth of well (TD)	19.45 ft
Depth to product	ft
Depth to water (DTW)	15.66 ft

Sample Types (circle all applicable)
Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	17.5 ft
Bubbles purged from flow cell?	(Y) / N
Is drawdown >0.3 feet	(Y) / N
Was passive sampling used?	Y / (N)
Flowrate =	500 mL/min
ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	17.02	16.31	16.21				
Spec. Cond (µmhos)	+/- 3%	0.710	0.718	0.714				
D.O. (mg/L)	+/- 10%**	2.53	2.37	2.20				
pH	+/- 0.1	7.19	7.17	7.16				
ORP (mV)	+/- 10 mV**	299	298	294				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 10 gallons
Sample Date: 9/16/09 Sample Time: 11:35 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES ~~NO~~ explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-16-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 156	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	18.34	ft
Depth to product		ft
Depth to water (DTW)	12.57	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling		
Height of water column (H = TD – DTW)		ft
Conversion value (CV)*	x	
1 Well volume = H x CV	=	gal
3 Well volumes =	=	gal
Purge method (B = bailer, P = pump)	B / P	

⇐OR⇒

Micropurge sampling	
Depth of pump placement (place mid-screen)	15.0 ft
Bubbles purged from flow cell?	(Y)/ N
Is drawdown >0.3 feet	(Y)/ N
Was passive sampling used?	Y /(N)
Flowrate =	500 mL/min
ID number from controller console	#

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	18.00	17.59	17.47	17.42			
Spec. Cond (µmhos)	+/- 3%	0.923	0.932	0.937	0.939			
D.O. (mg/L)	+/- 10%**	1.53	1.10	0.90	0.80			
pH	+/- 0.1	7.08	7.07	7.06	7.06			
ORP (mV)	+/- 10 mV**	300	291	285	282			
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:

Volume of water purged from well: 1.0 gallons
Sample Date: 9/16/09 Sample Time: 11:55 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain: _____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: Good

Signature: Kathy Eck Date: 9-16-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW-~~168~~ D Re 167	Well Location:

Monitoring Well Data

Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	32.44	ft
Depth to product		ft
Depth to water (DTW)	19.05	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: Dup-03)
~~MS/MSD~~
Other_____

Conventional sampling			⇐OR⇒	**Micropurge sampling**		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	27.0	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) / N	
3 Well volumes =	=	gal		Was passive sampling used?	Y (N)	
Purge method (B = bailer, P = pump)	B / P			Flowrate =	500	mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	18.29	18.10	18.05				
Spec. Cond (µmhos)	+/- 3%	0.886	0.896	0.897				
D.O. (mg/L)	+/- 10%**	1.10	0.76	0.62				
pH	+/- 0.1	7.23	7.21	7.20				
ORP (mV)	+/- 10 mV**	118	115	115				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9/16/09 Sample Time: 11 : 10 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-16-09

KERAMIDA ENVIRONMENTAL, INC.
GROUNDWATER SAMPLE INFORMATION SHEET

Facility Name: GP – Former Allison Plant 10	KEI Project #: 2829E
Sample I.D.: MW- 150	Well Location:

Monitoring Well Data		
Well Material	(PVC/SS/Teflon)	
Inside Diameter, in.	(1 2 4 6)	
Stick up or stick down height		ft
Total depth of well (TD)	18.35	ft
Depth to product		ft
Depth to water (DTW)	13.40	ft

Sample Types (circle all applicable)

Monitoring Well
Grab/Composite
Split Sample
Duplicate (Duplicate ID: _____)
MS/MSD
Other_____

Conventional sampling			⇐OR⇒	Micropurge sampling		
Height of water column (H = TD – DTW)		ft		Depth of pump placement (place mid-screen)	15.0	ft
Conversion value (CV)*	x			Bubbles purged from flow cell?	(Y) / N	
1 Well volume = H x CV	=	gal		Is drawdown >0.3 feet	(Y) N	
3 Well volumes =	=	gal		Was passive sampling used?	Y (N)	
Purge method (B = bailer, P = pump)	B / P			Flowrate =	500	mL/min
				ID number from controller console	#	

*Conversion values (gal/ft): 0.75" dia = 0.023, 1" dia = 0.04, 2" dia = 0.16, 4" dia = 0.65, 6" dia = 1.47

Field Test(s) Performed	Stability Range	Result (3 min)	Result (6 min)	Result (9 min)	Result (12 min)	Result (15 min)	Result (18 min)	Result (21 min)
Temperature (°C)	+/- 3%	17.89	17.74	17.59				
Spec. Cond (µmhos)	+/- 3%	0.868	0.879	0.873				
D.O. (mg/L)	+/- 10%**	1.21	1.03	0.99				
pH	+/- 0.1	7.06	7.03	7.03				
ORP (mV)	+/- 10 mV**	329	328	327				
Turbidity (NTU)	+/- 10%**							
H_2S (mg/L)								
Fe^{2+} (mg/L)								

Check stability after three readings and every reading thereafter until achieved.
**Only one of these parameters must reach stability.

Observations:
Volume of water purged from well: 1.0 gallons
Sample Date: 9/16/09 Sample Time: 13:20 (military time)
Was metals sample filtered prior to preservation? YES NO method: 0.45 µm cartridge / other: _____
Color of water before filtration: NA After filtration: NA
Reaction upon addition of preservatives? YES (NO) explain:_____
Appearance of Water: (Clear/Slightly Turbid/Turbid/Very Turbid)
Well condition: good

Signature: Kathy Eck Date: 9-16-09